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LI: (2) ("6119933").PN.

842: (1) 1. and (pay or payment or fee or collection or collect or paying or paid)

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~~357~~: (2) ((frontend or frint-end or (front adj2 end) or backend or back-end or (back adj2 end)) and
~~358~~: (474) (computer) and (pos or (point adj3 sale)) and (spreadsheet or spread-sheet or (spread a
~~359~~: (0) (computer) adj10 (pos or (point adj3 sale)) adj10 (spreadsheet or spread-sheet or (spread
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~~3518~~: (474) (computer) and (pos or (point adj3 sale)) and (spreadsheet or spread-sheet or (spread.
~~3519~~: (122) (computer) adj5 (pos or (point adj3 sale)) and (spreadsheet or spread-sheet or (spread.
~~3520~~: (7) (computer) adj5 (pos or (point adj3 sale)) and (spreadsheet or spread-sheet or (spread a
~~3521~~: (4) s20 and (Frontend or frint-end or (Front adj2 end) or backend or back-end or (back adj2.
~~3522~~: (2) ("6119933").PN.

	Document ID	Issue Date	Pages	Title	Current OR	Current XRef Retrieval C	Inventor	S	C
1	US 6119933 A	20000919	31	Method and apparatus for customer loyalty and	235/380	235/381; 902/27	wong; Earl Chang et al.	1	1

1 and (pay or payment or fee or [redacted]
collection or collect or paying or
paid)

Ward Search
12/27/2024



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United States Patent [19]

Wong et al.

[11] Patent Number: 6,119,933
[45] Date of Patent: Sep. 19, 2000

[54] **METHOD AND APPARATUS FOR CUSTOMER LOYALTY AND MARKETING ANALYSIS**

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[21] Appl. No.: 09/116,654

[22] Filed: Jul. 16, 1998

Related U.S. Application Data

[60] Provisional application No. 60/052,836, Jul. 17, 1997.

[51] Int. Cl.⁷ G06K 5/00

[52] U.S. Cl. 235/380; 235/381; 902/27

[58] Field of Search 235/380, 375, 235/379, 387, 449, 493; 902/3, 4, 27

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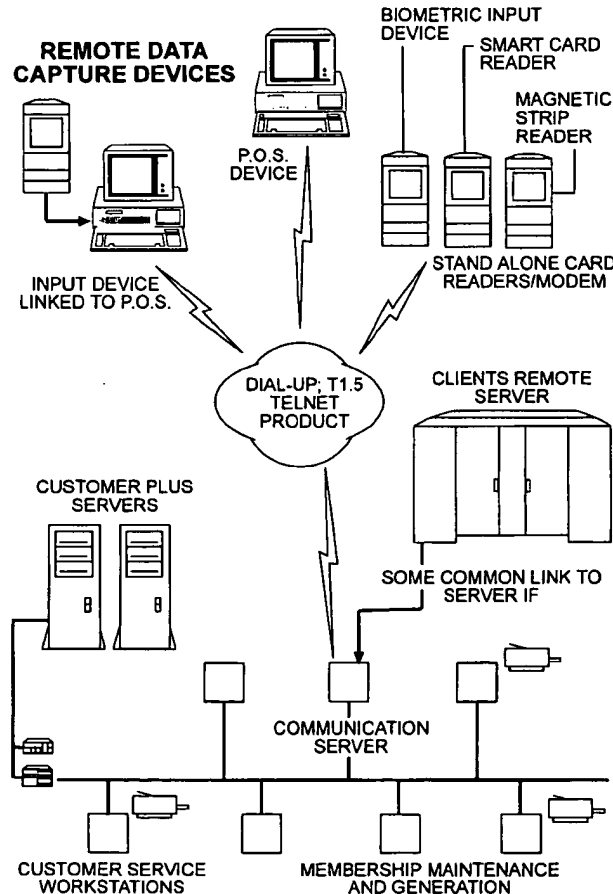
Primary Examiner—Michael G Lee

Attorney, Agent, or Firm—Townsend and Townsend and Crew LLP

[57] ABSTRACT

A customer frequency, analysis and reward system has multiple alternative components and allows for input of customer identification through use of a smart card, biometric input device, or a preexisting identification, such as a credit card, government-issued id, or checking account. A customer interacts with the system initially at a data collection point-of-sale (POS) device at a retail outlet. Data is periodically collected from the retail site to a data warehouse, where various types of analysis may be performed. A customer can interact with the system using an internet interface, thus reducing costs of ownership.

6 Claims, 23 Drawing Sheets



US-PAT-NO: 6119933

DOCUMENT-IDENTIFIER: US 6119933 A

TITLE: Method and apparatus for customer
loyalty and marketing
analysis

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TITLE - TI (1):

Method and apparatus for customer loyalty and marketing
analysis

Brief Summary Text - BSTX (3):

According to one embodiment, a customer interacts with
the system initially
at a data collection point-of-sale POS) device at a retail
outlet or other
place where a customer interacts with the seller (or user
of the system). This
POS device may include a magnetic card reader for reading a
magnetic stripe on
a credit card or other customer loyalty card, or may
include a keyboard for
entering customer ID information, or may include a check
scanner for reading
the number of a customer checking account, or may include a
biometric input
device such as a fingerprint reading technology, or any
other device for
identifying and validating the identity of a particular
customer or
group/family of customers.

Brief Summary Text - BSTX (4):

Once the customer data is read by the POS device, it is
compared against a
local database which is generally at the retail
establishment or quickly
accessible to the retail establishment. A match is

attempted in the local database from whatever data is collected from the customer. According to one embodiment of the invention, the database will have multiple input points so that a customer does not need to provide a single ID for a loyalty system but the customer's identity may be determined from any of the possible inputs including different credit cards, a number of different checking accounts, a driver's license, or any other ID methodology.

Brief Summary Text - BSTX (5):

If no match is found in a local database, for example, if it's the first time that a customer is visiting a particular retail outlet, the loyalty system may then check in a second level local database, or may use the Internet or wide area networking technology to attempt a customer ID match in a central database. If no match is found in the local database or the central database, a customer may be invited to provide identifying data at the point of sale so as to join the customer loyalty program. Such invitation may take a form of a mailing card, a computer keyboard input, or an interview conducted by the point-of-sale retail clerk to determine the customer loyalty input data.

Brief Summary Text - BSTX (7):

According to a further embodiment of the invention, the system keeps track of customer frequency award points in order to encourage customers to participate in the system. A mechanism is provided for customers to directly interact with this customer loyalty system in order to determine their eligibility for awards, or other information, based on

their patronage of particular retailers that participate in the customer loyalty system.

According to one embodiment, this interface is provided via the World Wide Web over the Internet wherein customers are allowed to interact directly with aspects of the data warehouse, to view their customer information, and to make corrections to such identifying information as telephone numbers and addresses.

Detailed Description Text - DETX (49):

Open Customer Base: A customer base is defined in Customer Plus as the member group. Member groups are tied to a particular customer frequency/loyalty program. Only one customer base can be open at a time. The customer base name is displayed on the title bar next to "Customer Plus".

Detailed Description Text - DETX (61):

The standard set of reports and queries that may be included with the invention include: Output; Generic Ledger; Spreadsheet Net Sales; Ticket average; Food counts; Net dollars; Labor costs; Executive Summary; Sales and Ledger Summary; Per Person Average Spending; Area Labor Analysis Project hours; Actual hours; Daily Labor by Employee (Time and Attendance Pay rate; Time in/out; Hours; Labor costs; Key Indicators; Product Sales Mix Quantity of food item; % of entrees; Food Bar Costs; Ticket Average Quantity sold; Dollars sold; Labor Productivity Meal counts; Sales; Minutes per meal; Company Sales Rollup Net sales; Labor costs; Custom List; Birthday List; Sales Activity; Rolling 12 Month Trend; Promotion Analysis; Join Date List; New Enrollments.

Claims Text - CLTX (17):

a customer loyalty reward system, with access to data in said data warehouse, for maintaining information regarding customer frequency in order to provide an awards program as an incentive for a customer participating in said customer analysis system.